

Work Order ID 124642 - 2

124642

Page 1

Thursday, September 18, 2014 11:55:49 AM

Item ID: D4857-M

Revision ID:

Item Name: Wiper Deflector

Start Date: 9/18/2014 Start Qty: 20.00

Required Date: 10/3/2014 Req'd Qty: 20.00

Reference:

Approvals:

Process Plan: MF

Date: 14-9-18 Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4857	E								

100

0.00

100

Purchasing

Memo

0.00

Purchasing

Issue P/O: 25862

Possible supplier: CARBON BY DESIGN

Manufacture as per dwg D4857-M

Prime Deflector as per dwg (SEE NOTE 4)

Certificate of Conformity release note is required.

CL 14/09/22 @20

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

5x SP 14-10-6

Q-7284

Q-7284

Q-7284

Q-7284

Q-7284

Q-7284

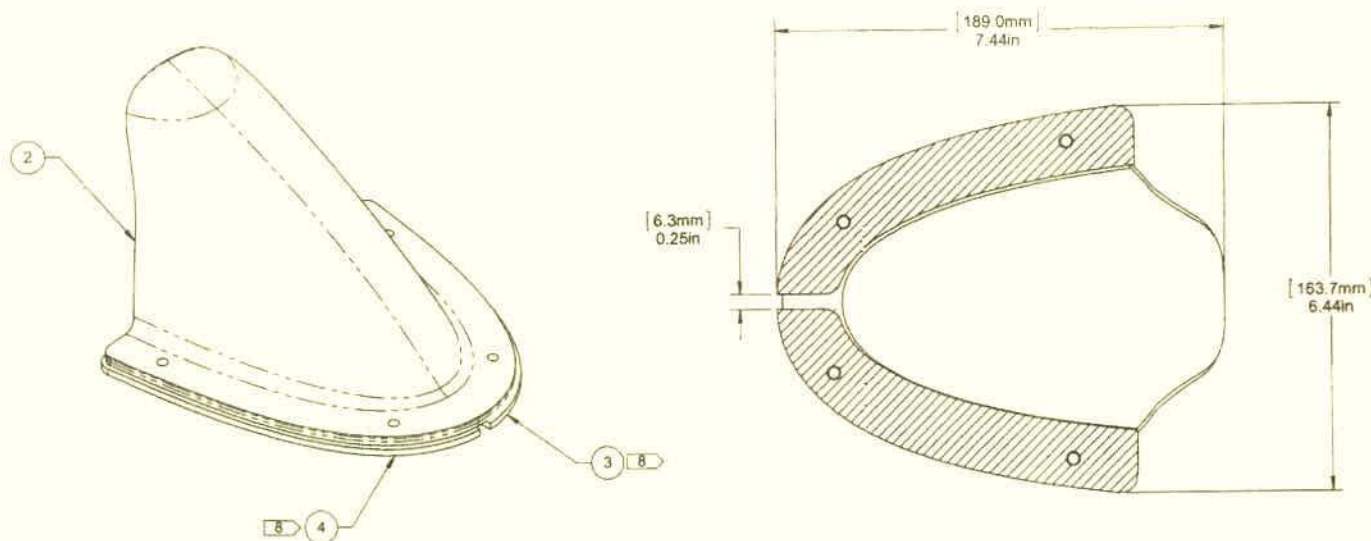
Q-7284

Q-7284

Q-7284

Q-7284

ITEM	QTY -043	P/N	DESCRIPTION
1	X	D4857-043	WIPER DEFLECTOR ASSEMBLY, LH
2	1	D4857-3	WIPER DEFLECTOR LH
3	1	D5117-1	GASKET
4	1	D5117-3	GASKET



D4857-043 WIPER DEFLECTOR ASSEMBLY, LH

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2014-06-11

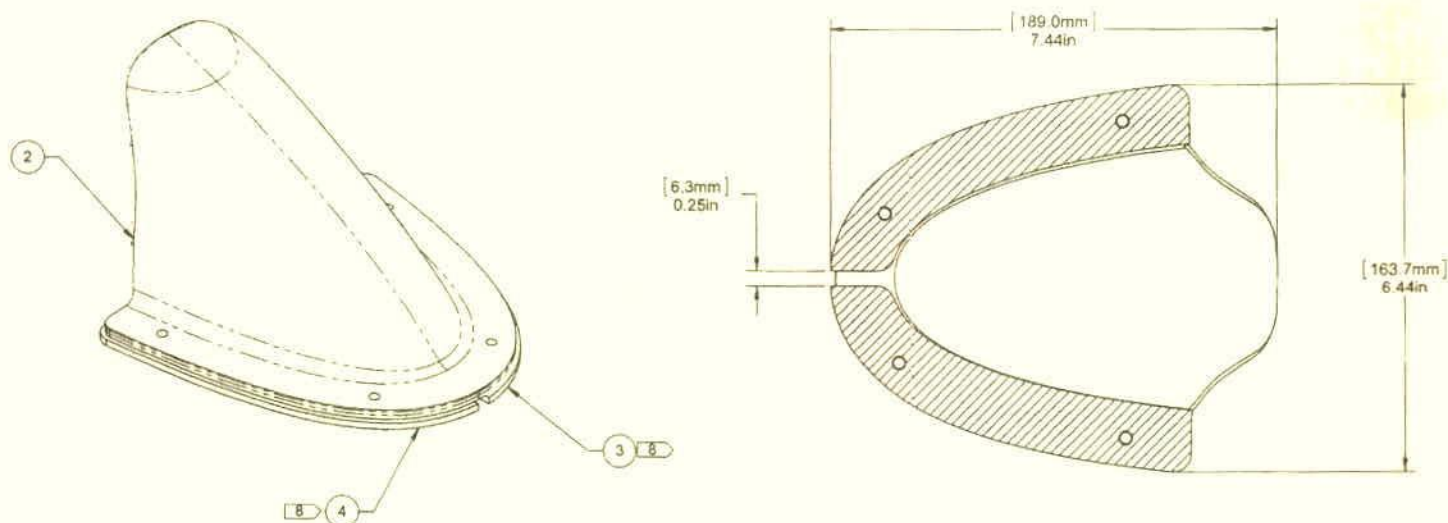
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D4857-043, REVISION, BATCH NUMBER, AND DATE OF MANUFACTURE, AS PER QSI 044 METHOD 6.1
- 7) WEIGHT: 0.38 lbs (0.17 kg)
- 8) BOND D5117-1/-3 GASKET TO EDGE OF PART USING DOW CORNING 736 ADHESIVE

E	REVISE NOTE 6) (ZN A8-1, A8-2, A8-3); AND NOTE 8) (ZN A8-1, A8-2, A8-3)	AK	14.06.05
D	ADDED D4857-043 (ZN C7-1), D4857-044 (ZN C7-2), D4857-3 (ZN C7-4), D4857-4 (ZN C7-5) AND D4857-M (ZN C7-6)	AK	14.05.13
C	ADDED 4 MOUNTING HOLES	DW	13.12.09
B	REVISED BOM, DRAWING VIEWS, NOTES	PB	13.08.13
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	VS	DRAWING NO.	REV. E
MFG. APPR.	JFS	D4857	SHEET 1 OF 7
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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ITEM	QTY -044	P/N	DESCRIPTION
1	X	D4857-044	WIPER DEFLECTOR ASSEMBLY, RH
2	1	D4857-4	WIPER DEFLECTOR RH
3	1	D5117-5	GASKET
4	1	D5117-7	GASKET



D4857-044 WIPER DEFLECTOR ASSEMBLY, RH

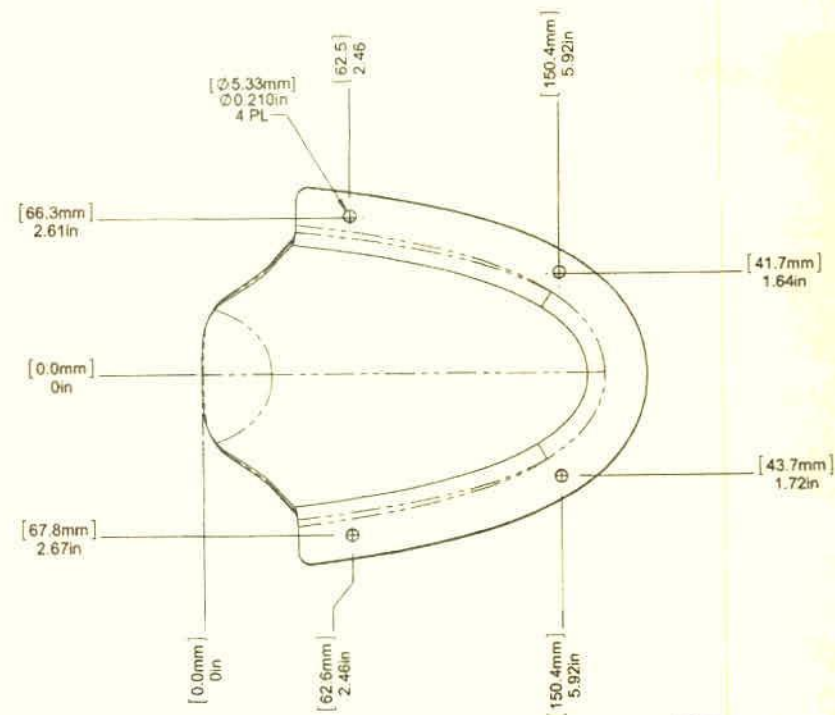
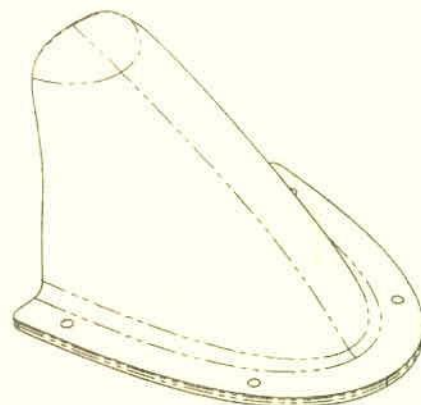
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2014-06-11

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D4857-044, REVISION, BATCH NUMBER, AND DATE OF MANUFACTURE, AS PER QSI 044 METHOD 6.1
- 7) WEIGHT: 0.38 lbs (0.17 kg)
- 8) BOND D5117-5/-7 GASKET TO EDGE OF PART USING DOW CORNING 736 ADHESIVE

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DESIGN	DW	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO	REV. E
MFG. APPR	JFS	D4857	SHEET 2 OF 7
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D4857-1 WIPER DEFLECTOR

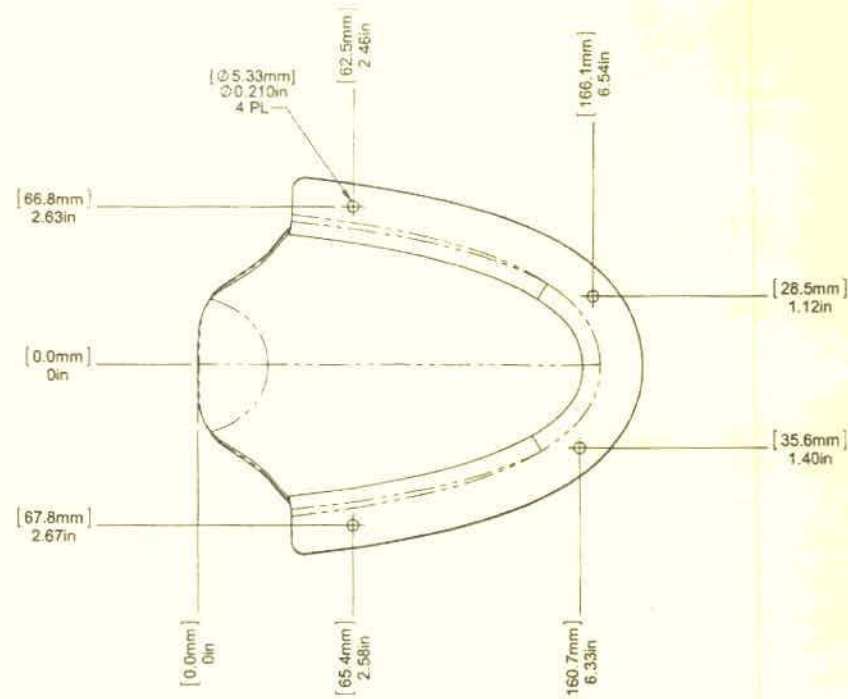
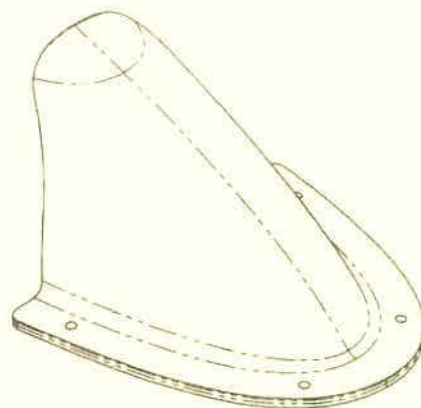
RELEASED
2014-06-11
WIP

NOTES:

- 1) MATERIAL: MADE FROM D4857-M
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 0'8 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D4857-1, REVISION, BATCH NUMBER, AND DATE OF MANUFACTURE, AS PER QSI 044 METHOD 6.1
- 7) WEIGHT: 0.24 lbs (0.11 kg)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-1-e.IGES

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MFG. APPR.	JFS	D4857	SHEET 3 OF 7
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D4857-3 WIPER DEFLECTOR, LH

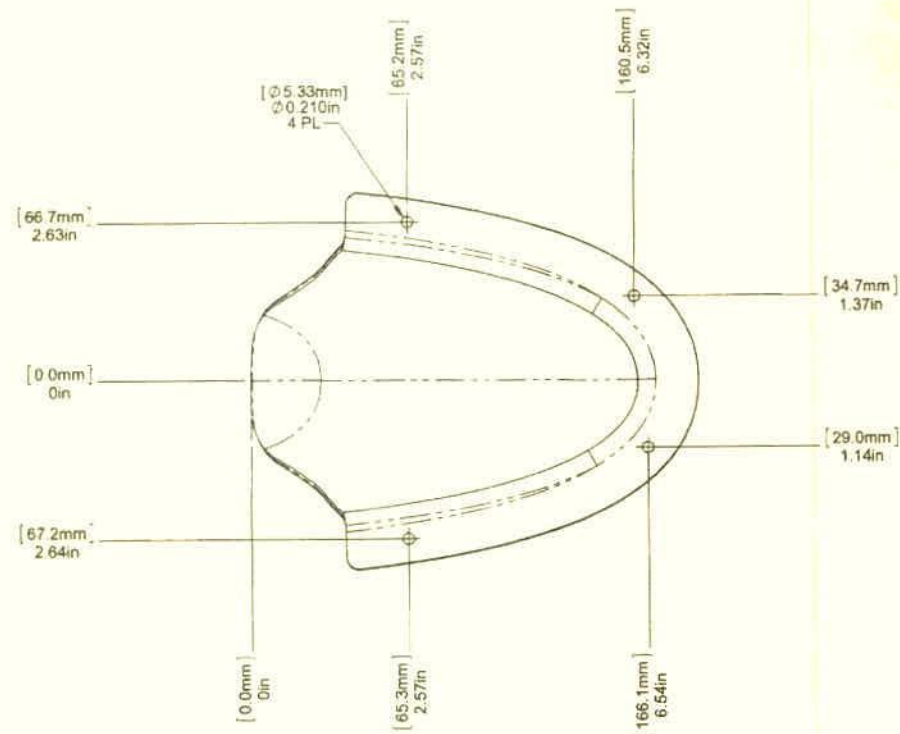
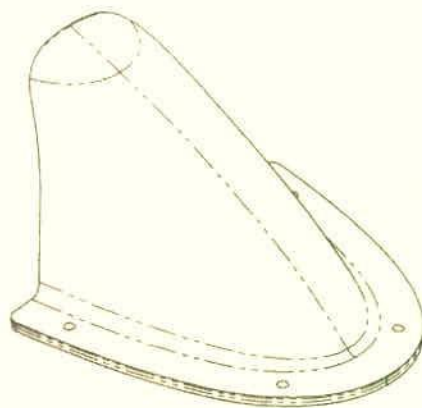
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2014-06-11

NOTES:

- 1) MATERIAL: MADE FROM D4857-M
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.24 lbs (0.11 kg)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-3-e.IGES

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D4857-4 WIPER DEFLECTOR, RH

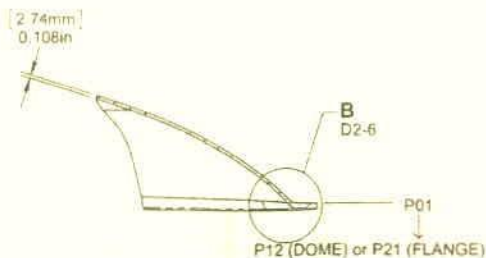
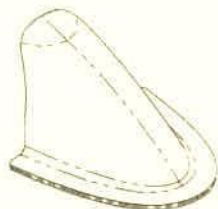
RELEASED
2014-06-11
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NOTES:

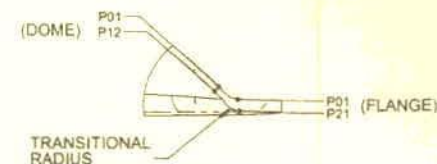
- 1) MATERIAL: MADE FROM D4857-M
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.24 lbs (0.11 kg)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-4-e IGES

APPROVED

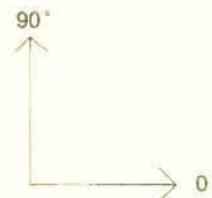
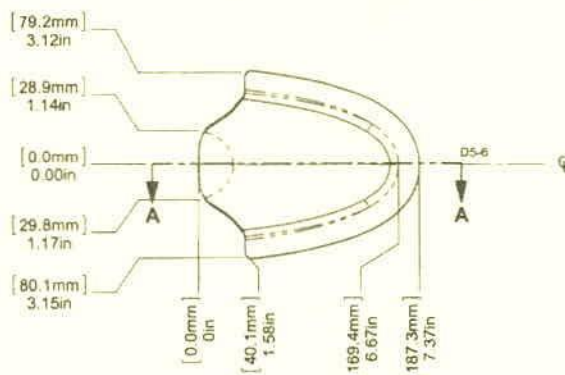
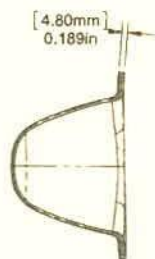
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DRAWN	RF		
CHECKED	VS	DRAWING NO.	REV. E
MFG. APPR.	JFS	D4857	SHEET 5 OF 7
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SECTION A-A
BS-6



DETAIL B
DS-6



D4857-M WIPER DEFLECTOR

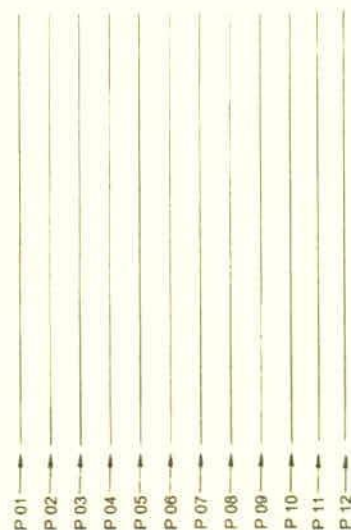
NOTES

- 1) MATERIAL: KEVLAR #285/353 4H SATIN, EPOXY PREPREG, 250°F CURE, 40% R/C
- 2) MATERIAL: CARBON FIBER PREPREG, ALDILA PREPREG SYSTEM 3K2X2-FR250-204/40 T300.
- 3) MATERIAL: ALDILA #120 E-GLASS AR250 WITH 48% RC;
- 4) FINISH: PRIMER IAW MIL-P-85582, 2-7 MIL MAX.
- 5) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 7) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 8) IDENTIFICATION: N/A
- 9) WEIGHT: 0.24 lbs (0.11 kg)
- 10) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-M-e.IGES
- 11) SEE PAGE 7 FOR LAYUP SCHEDULE. MANUFACTURE IAW MPP 145. CURE 250°F FOR 4 HOURS.

RELEASED
2014-06-11

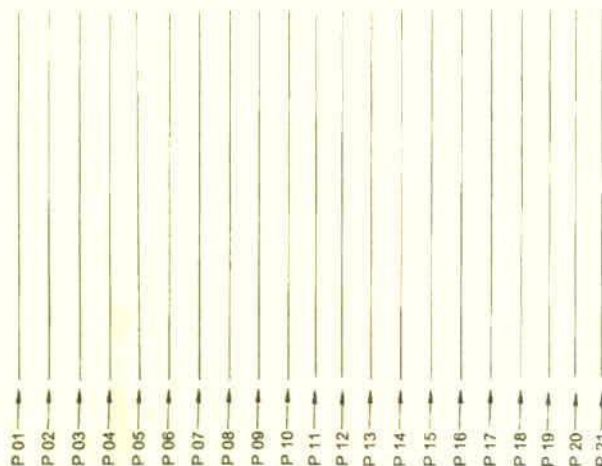
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MFG. APPR.	JFS	D4857	SHEET 6 OF 7
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LAYUP OF LAYERS (DOME)

LAMINATE - .108in (12 LAYERS)			
PLY	WARP ANGLE	MATERIAL	THICKNESS
01	90	[1]	.008-.010
02	0	[1]	.008-.010
03	90	[2]	.008-.010
04	0	[2]	.008-.010
05	90	[2]	.008-.010
06	0	[2]	.008-.010
07	90	[2]	.008-.010
08	0	[2]	.008-.010
09	90	[2]	.008-.010
10	0	[2]	.008-.010
11	90	[2]	.008-.010
12	0	[2]	.008-.010



LAYUP OF LAYERS (FLANGE)

LAMINATE - .189in (21 LAYERS)			
PLY	WARP ANGLE	MATERIAL	THICKNESS
01	90	[1]	.008-.010
02	0	[1]	.008-.010
03	90	[2]	.008-.010
04	0	[2]	.008-.010
05	90	[2]	.008-.010
06	0	[2]	.008-.010
07	90	[2]	.008-.010
08	0	[2]	.008-.010
09	90	[2]	.008-.010
10	0	[2]	.008-.010
11	90	[2]	.008-.010
12	0	[2]	.008-.010
13	90	[2]	.008-.010
14	0	[2]	.008-.010
15	90	[2]	.008-.010
16	0	[2]	.008-.010
17	90	[2]	.008-.010
18	0	[2]	.008-.010
19	90	[2]	.008-.010
20	0	[2]	.008-.010
21	90	[3]	.005

APPROVED

DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	VS	DRAWING NO.	REV. E
MFG. APPR.	JFS	D4857	SHEET 7 OF 7
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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RELEASED
2014-06-11



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO25862

Purchase Order Date 9/22/2014

PO Print Date 9/22/2014

Page Number 1 of 2

Order From :

VU-CBD001

Ship To : DART AEROSPACE LTD

CARBON BY DESIGN
4128 AVENIDA DE LA PLATA
OCEANSIDE, CALIFORNIA 92056
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FA-25862

Contact Name

Vendor Phone 760-643-1300

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extend Pri
1	D4857-P MANUFACTURE AS PER DWG D4857 REV. E B124642	Wiper Deflector	10/10/2014 Yes 10/10/2014	FN	20.00 Each	\$695.00	\$13,900
						Line Total:	\$13,900
2	71401-45 Procurement Quality Clauses A004 faa-pma/tso A005 right of entry A016 personnel qualification A025 certification of conformance A040 notification of quality escape A041 quality management A042 dart notification by supplier A043 retention of quality documents	PROCUREMENT QUALITY CLAUSES	10/10/2014 No 10/10/2014		1.00	\$0.00	\$0

recus.

SP14-10-6

PO Instructions: Fedex Acc#151793240

Note:

9/22/2014



carbon by design

4128 Avenida De La Plata - Oceanside, CA 92056
Phone: 760-643-1300 Fax: 760-643-1333
www.carbonbydesign.com

Packaging List

Date: 10/3/2014
Packaging List No. 17264
Cage Code: 4DG17
CBD Work Order No. 8229
Customer PO No.: PO25862

Billing Address:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
UPS# 664-5W1

Please Deliver To:

Dart Aerospace LTD
1270 Aberdeen
Hawkesbury, ON K6A 1K7
Canada

Customer Phone	Terms	Rep	Ship Date	Ship Via
613-632-5200	Net 30	JB	10/3/2014	UPS 2nd Day

Item	Line #	Description	Qty	U/M
D4857-P	1	Dart Aerospace D4857-P, Wiper Deflector S/N: 17264-1/17264-5 Procurement Quality Clauses	5	

8014-10-6

Thank you for your business.

Total Items: 5

SHIPPING VALUE
\$3,475.00

CERTIFICATE OF CONFORMANCE (SHORT FORM CUSTOMERS ONLY)

I certify that on _____, the Carbon by Design LP furnished the supplies or services called for by the Purchase Order Above via Deliver in accordance with all applicable requirements.

I further certify that the supplies or services are of the quality specified and conform in all respects with the contract requirements, including specifications, drawings, preservation, packaging, packing, marking requirements, and physical item identification, and are in the quantity shown in this or on the attached acceptance document.

Quality: _____ Date: _____

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**carbon by design**

10/3/2014

CERTIFICATE OF CONFORMANCE

PO: No.: 25862	DESC: Wiper Deflector	Insp: JR	Packing #: 17264
Customer: Dart Aerospace LTD	Drawing: D4857-P Rev E	Qty: 5	Serials: 17264-1/17264-5

Work Requirements:

Statement of Work:	SOW on file
Internal Process Doc.:	2206-253
Inspection Document:	2206-253
Manufacturing Process:	Pressure Intensifier
Security Requirement:	Confidential

Approved Non-Conformances: NO**Pending:** NO**DISPOSITION:** To Customer, Ship**SHIP METHOD:** UPS 2nd Day**Certification Statement:**

Carbon by Design LP certifies the items listed above conform to all of the applicable work and quality standard required in the purchase order listed above and any additional work requirements referenced.

All in process quality standards have been met according to customer requirements and Carbon by Design internal quality and finish requirements. All materials Certification are available for inspection and will remain on file at Carbon by Design for a period of no less than ten years.

Finished Materials/Process Specifications:

Per Drawing Requirements

Additional Quality Clauses:

Per PO Requirements, 100% Inspection

Active Quality Systems:

ISO9001:2008

Inspector's Name: David RodriguezSignature: David RodriguezTitle: QCDate: 10/3/14

